Monday, 7 October 2013

Morning Session

Chair: Christoph Weidenbach

9:00–9:30  Organizers, All  Welcome, Announcements, Introduction of Participants
9:30–10:00  Jürgen Giesl  Analyzing Runtime and Size Complexity of Integer Programs
10:00–10:30  André Platzer  Logic of Hybrid Games  

—Coffee Break—

Chair: Alberto Griggio

11:00–11:30  Peter Baumgartner  Hierarchic Superposition With Weak Abstraction and the Beagle Theorem Prover
11:30–12:00  Wojciech Mostowski  Non-numerical Permissions for Concurrent Reasoning  

—Lunch Break—
## Monday, 7 October 2013 Cont’d

### Afternoon Session

**Chair: Marek Kosta**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00-14:30</td>
<td>Enric Rodríguez-Carbonell</td>
<td>Proving Unsatisfiability in Non-linear Arithmetic by Duality</td>
</tr>
<tr>
<td>14:30–15:00</td>
<td>Wolfgang Ahrendt</td>
<td>Verifying (In-)Stability in Floating-point Programs by Increasing Precision, using SMT Solving</td>
</tr>
<tr>
<td>15:00–15:30</td>
<td>Carsten Fuhs</td>
<td>Cooperation for Better Termination Proving</td>
</tr>
</tbody>
</table>

—Coffee Break—

**Chair: Eva Darulova**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:00–16:30</td>
<td>Marek Košta</td>
<td>An SMT-Based Approach To Memory Access Optimization Problems</td>
</tr>
<tr>
<td>16:30–17:00</td>
<td>Christian Sternagel</td>
<td>Certified Abstract Completion</td>
</tr>
<tr>
<td>17:00–17:30</td>
<td>David Monniaux</td>
<td>Death by a thousand cuts (worst-case execution time by bounded model checking)</td>
</tr>
</tbody>
</table>
Tuesday, 8 October 2013

Morning Session

Chair: Philipp Ruemmer

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00–9:30</td>
<td>Aart Middeldorp</td>
<td>From Ordinal Interpretations to Elementary Interpretations</td>
</tr>
<tr>
<td>9:30–10:00</td>
<td>Pascal Fontaine</td>
<td>The Poor Man’s Way to Integrate Non Linear Real Arithmetic Reasoning Capabilities within SMT</td>
</tr>
<tr>
<td>10:00–10:30</td>
<td>Jeremy Avigad</td>
<td>Approximate decidability and the verification of hybrid systems</td>
</tr>
</tbody>
</table>

—Coffee Break—

Chair: Ruzica Piskac

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00–11:30</td>
<td>Viorica Sofronie-Stokkermans</td>
<td>Hierarchical reasoning and model generation in verification</td>
</tr>
<tr>
<td>11:30–12:00</td>
<td>Eva Darulova</td>
<td>Sound Compilation of Reals</td>
</tr>
</tbody>
</table>

—Lunch Break—

Afternoon Session

Chair: Stephan Falke

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00–14:30</td>
<td>Assia Mahboubi</td>
<td>Automated (Formal) Proofs of Summation Identities</td>
</tr>
<tr>
<td>14:30–15:00</td>
<td>Konstantin Korovin</td>
<td>Solving Linear Arithmetic by Bound Propagation</td>
</tr>
<tr>
<td>15:00–15:30</td>
<td>Arie Gurfinkel</td>
<td>Interpolation for Software Verification</td>
</tr>
</tbody>
</table>

—Coffee Break—

Chair: Christian Sternagel

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:00–16:30</td>
<td>Bernhard Beckert</td>
<td>On the Specification and Verification of Voting Schemes</td>
</tr>
<tr>
<td>16:30–17:00</td>
<td>Jérôme Leroux</td>
<td>Computing Vector Addition System Reachability Sets</td>
</tr>
<tr>
<td>17:00–17:30</td>
<td>Philipp Ruemmer</td>
<td>Exploring Interpolants</td>
</tr>
</tbody>
</table>
Wednesday, 9 October 2013

Morning Session

Chair: Assia Mahboubi

9:00–9:30  Christoph Weidenbach  Hierarchic Superposition—Current Status and Future Steps
9:30–10:00  Dejan Jovanović  Model-Constructing Satisfiability Calculus
10:00–10:30  Nikolaj Bjørner  Basic Hilbert Basis

—Coffee Break—

Chair: Richard Bubel

11:00–11:30  Tjark Weber  Integrating SAT, QBF and SMT Solvers with Interactive Theorem Provers
11:30–12:00  Jasmin Blanchette  Arithmetic in Sledgehammer

—Lunch Break—

15:30-23:00  All  Social Activity
Thursday, 10 October 2013

Morning Session

Chair: Enric Rodríguez-Carbonell

9:00–9:30 Leonardo de Moura  Arithmetic Procedures in the Model-Constructing Satisfiability Calculus
9:30–10:00 Tobias Nipkow  Linear Quantifier Elimination for Linear Orderings with Endpoints
10:00–10:30 Thomas Sturm  Satisfiability Checking for the Sciences
—Coffee Break—

Chair: Dejan Jovanović

11:00–11:30 Stephan Falke  Making Invariants Inductive
11:30–12:00 Grant Passmore  Exact Global Optimization on Demand
—Lunch Break—

Afternoon Session

Chair: Jasmin Blanchette

14:00-14:30 Ruzica Piskac  Automating Separation Logic Using SMT
14:30–15:00 Carsten Sinz  Some Challenges in Applied Software Bounded Model Checking
15:00–15:30 —  Announcements
—Coffee Break—

Chair: Carsten Fuhs

16:00–16:30 Tim King  Floating Point Simplex Solvers for SMT
16:30–17:00 Alberto Griggio  Simple Interpolation for Floating-Point Arithmetic with Abstract CDCL
17:00–17:30
Friday, 10 October 2013

Morning Session

Chair: Wolfgang Ahrendt

9:00–9:30 Martin Fränzle Deduction and Arithmetic—a Functional Marriage (iSAT, odeSAT, and related procedures)

9:30–10:00 René Thiemann Partial Certification for Termination Proofs and More

10:00–10:30 James J. Hunt Realtime Java and Formal Methods: Use and Open Issues

—Coffee Break—

11:00–12:00 Organizers Wrap-Up Session

End of Seminar/Lunch